

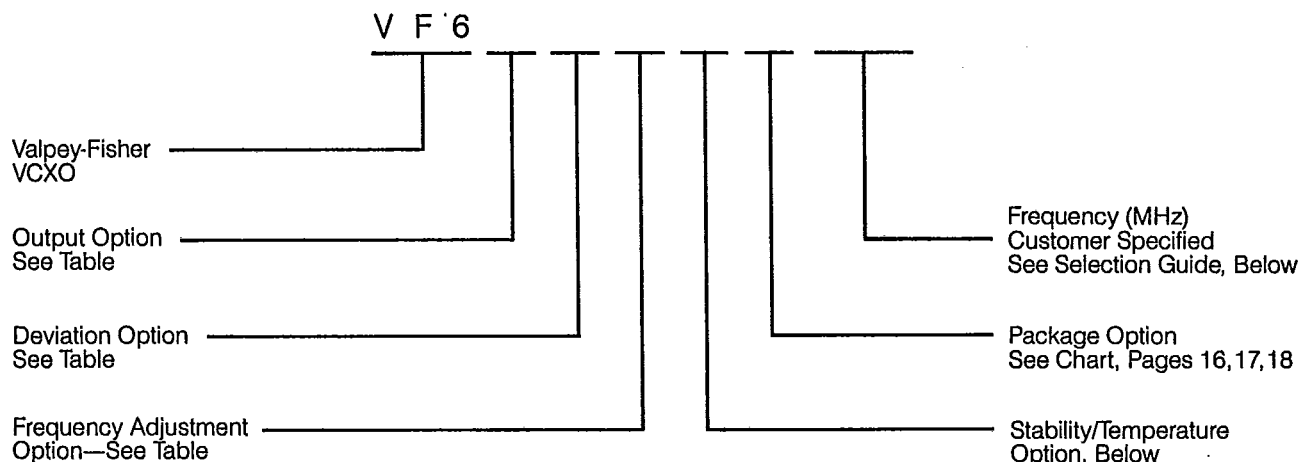
OSCILLATORS

**VF600 Series
DISCRETE VOLTAGE CONTROLLED
CRYSTAL OSCILLATORS (VCXO)**

Valpey-Fisher Voltage Controlled Crystal Oscillators (VCXOs) allow frequency adjustment by means of an externally applied voltage, and are often temperature compensated to assure excellent frequency stability. Typical uses of VF600 series oscillators include phase-lock-loop (PLL) circuitry, data translation electronics,

telecommunications and instrumentation. Enable/disable, tri-state logic and multiple frequency outputs are also available as special design options. The VF600 VCXO design precludes the need for separate electronic or mechanical frequency adjustment.

VF600 Series (VCXO) Ordering Guide



Example: VCXO Design, TTL Waveform Output 26.34967 MHz, 2.0" x 2.0" Package, ± 1 x 10⁻⁵ Stability Over 0°C to +50°C Range, w/o Frequency Adjustment, ± 30 ppm Deviation Allowed

Order: VF65X0PH26.34967

VF600 Series (VCXO) Output Wave Form Options*

WAVE FORM	SINE	TTL	HCMOS
PART # DESIGNATOR	4	5	8

VF600 Series (VCXO) Stability/Temperature Options

PART # DESIGNATOR	TEMPERATURE/STABILITY RANGE	
	FREQ. STABILITY	OVER TEMP RANGE
D	±5 x 10 ⁻⁶	-20°C to 70°C
N	±1 x 10 ⁻⁵	0°C to 50°C
P	±2.5 x 10 ⁻⁵	-20°C to 70°C

VF600 Series (VCXO) Selection Guide*

PACKAGE OPTION ¹	OUTPUT OPTION ¹	FREQ. RANGE ² (MHz)	STAB/TEMP OPTION	DEVIATION OPTION	INPUT VOLTAGE	ADJUST OPTION ¹
D 1.5" x 0.5"	4	SINE	10-30	N	W	+15 VDC 0,1
	5	TTL	0.1-30	P	X	
	8	HCMOS	0.1-30			
H 2.0" x 0.5"	4	SINE	0.5-250	N, D	W	+15 VDC 0,1
	5	TTL	0.1-100	P	X	
	8	HCMOS	0.1-30			

*Consult factory for other options

Notes:

- 1 See appropriate option tables
- 2 Requires multiplication above 30 MHz. Subharmonics will be -20dBc max.

VF600 Series (VCXO) Frequency Adjustment Options

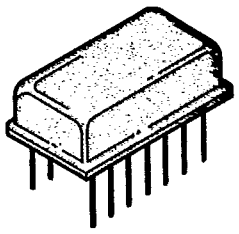
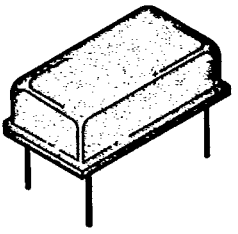
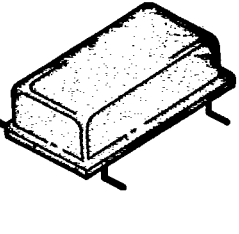
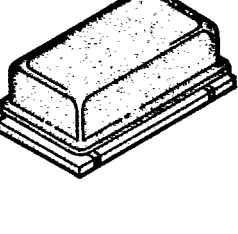
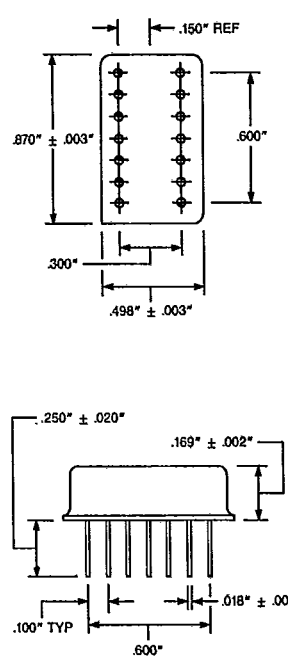
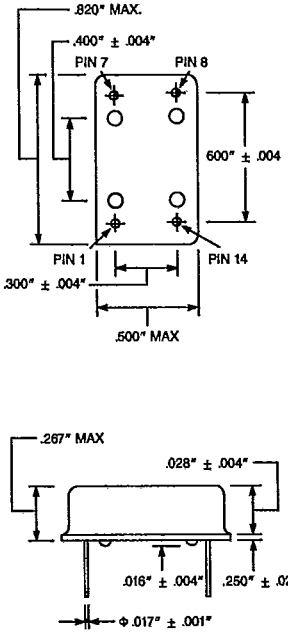
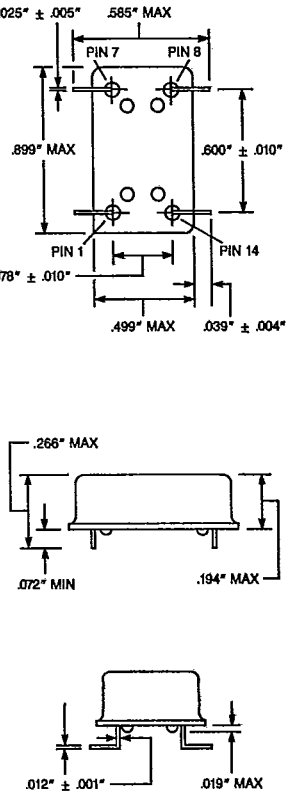
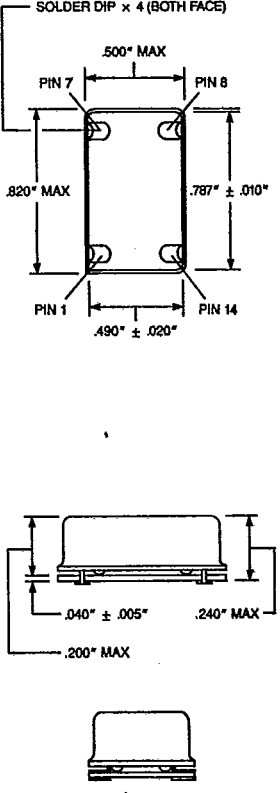
PART # DESIGNATOR	ADJUSTMENT METHOD
0	NONE
1	MECHANICAL
2	ELECTRICAL

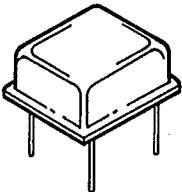
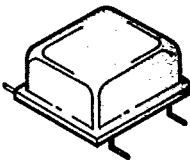

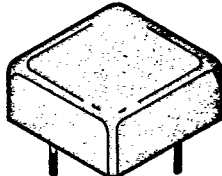
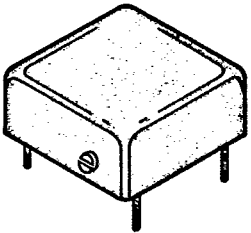
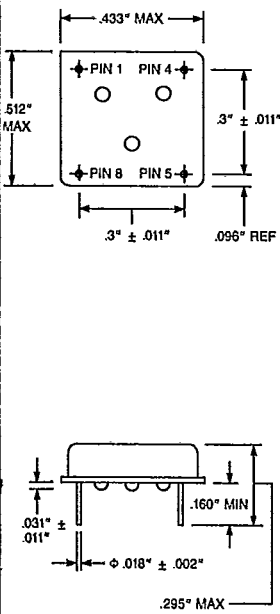
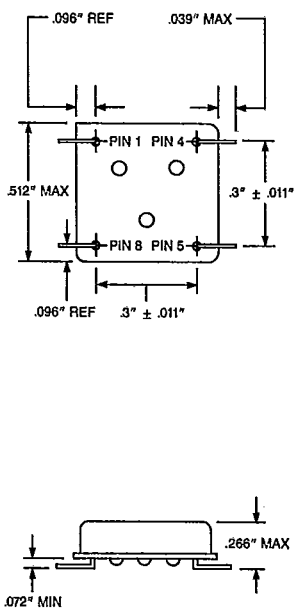
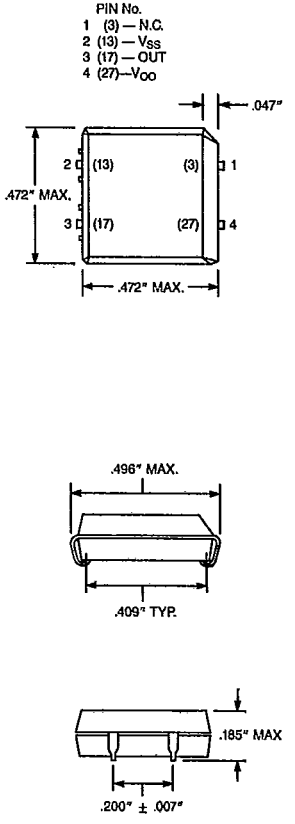
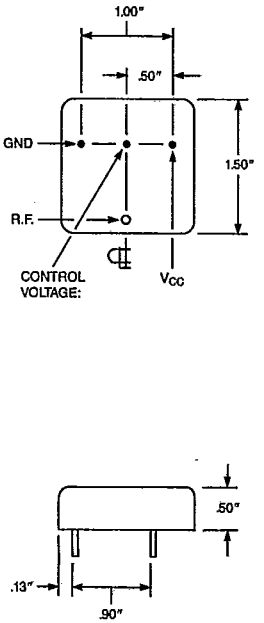
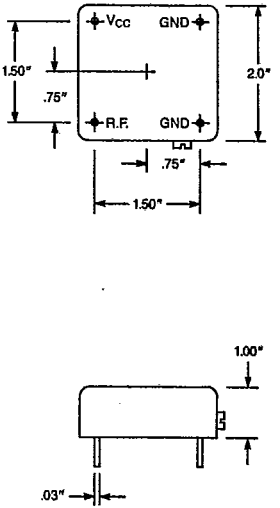
VF600 Series (VCXO) Deviation Options

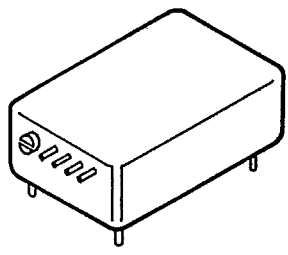
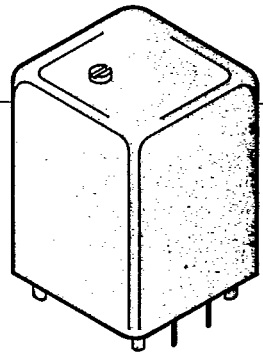
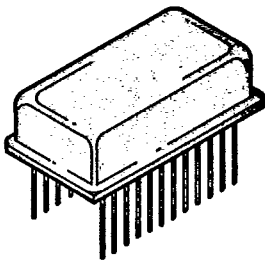
PART # DESIGNATOR	ALLOWED DEVIATION
W	± 30 ppm
X	± 100 ppm

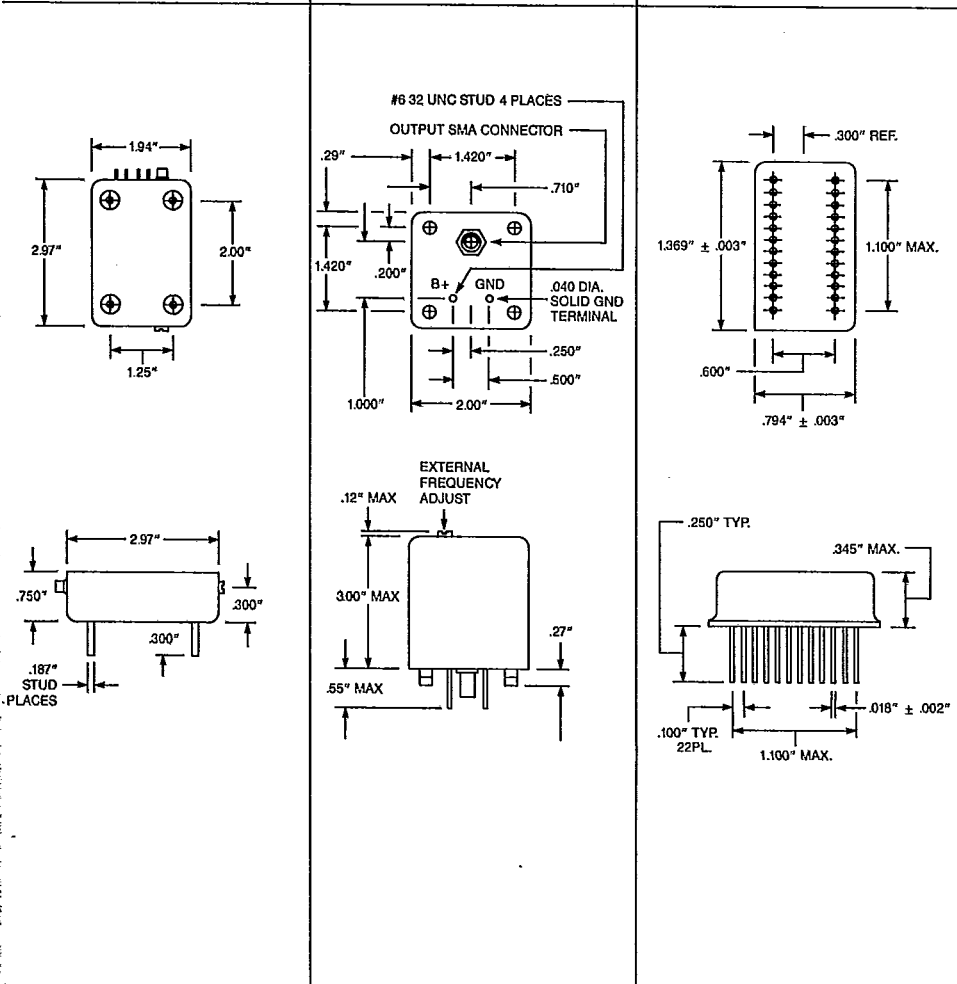
OSCILLATORS

OSCILLATOR
HOLDERS AND ENCLOSURES

				
<p>Package Description</p>	<p>14 pin DIP PTH, 14 pins loaded</p>	<p>14 pin DIP PTH, 4 pins loaded</p>	<p>14 pin DIP SMT, 4 leads, Gullwing</p>	<p>14 pin DIP SMT, 4 pads on substrate</p>
<p>Package Designation</p>	<p>Special, consult factory</p>	<p>Standard</p>	<p>G</p>	<p>L</p>
<p>Construction</p>	<p>Metal, Resistance Weld</p>	<p>Metal, Resistance Weld</p>	<p>Metal, Resistance Weld</p>	<p>Metal, Resistance Weld</p>
<p>Logic or Oscillator Series</p>	<p>VF150 (TTL) VF160 (ECL) VF170 (CMOS) VFHS170 (HCMOS) VF600 (VCXO)</p>	<p>VF150 (TTL) VF160 (ECL) VF170 (CMOS) VFHS170 (HCMOS) VF600 (VCXO)</p>	<p>VF150 (TTL) VF160 (ECL) VF170 (CMOS) VFHS170 (HCMOS) VF600 (VCXO)</p>	<p>VF150 (TTL) VF160 (ECL) VF170 (CMOS) VFHS170 (HCMOS)</p>
<p>Package Dimensions Type Available in this Package</p>				

				
<p>1/2 size DIP PTH, 4 pins loaded</p>	<p>1/2 size DIP SMT, 4 leads Gullwing</p>	<p>28 pin PLCC, SMT, 4 "J" leads</p>	<p>1.5" x 1.5" stamped, PTH 4 pins</p>	<p>2.0" x 2.0" stamped, PTH 4 pins</p>
<p>84, 85</p>	<p>SM</p>	<p>PSM</p>	<p>D</p>	<p>H</p>
<p>Metal, Resistance Weld</p>	<p>Metal, Resistance Weld</p>	<p>Plastic, Molded</p>	<p>Metal, Solder Seal</p>	<p>Metal, Solder Seal</p>
<p>VF75 (TTL) VF84 (CMOS) VFHS85 (HCMOS)</p>	<p>VF75 (TTL) VF84 (CMOS) VFHS85 (HCMOS)</p>	<p>VF500 (TCXO) VF600 (VCXO)</p>	<p>VF500 (TCXO) VF600 (VCXO)</p>	<p>VF500 (TCXO) VF600 (VCXO)</p>
		<p>PIN No. 1 (3) - N.C. 2 (13) - V_{SS} 3 (17) - OUT 4 (27) - V_{CC}</p> 		

		
2.0" x 3.0" stamped, PTH, 4 pins + SMT connector	2.0" x 2.0" x 3.0" ht, PTH, 4 studs, 2 pins, SMA connector	24 pin DIP, PTH, 4 to 24 pins loaded
M	R	U
Metal, Solder Seal	Metal, Solder Seal	Metal, Resistance Weld
VF500 (TCXO) VF600 (VCXO)	VF800 (OCXO)	VF500 (TCXO) VF600 (VCXO)



Valpey-Fisher Hybrid Oscillator Options

SERIES/ OPTION	Tighter Symmetry	Half Size	Plastic Package	Double and Triple Outputs	Enable/ Disable Function	Tristate Output
VF75 (TTL)	✓	✓			✓	✓
VF84 (HCMOS)	✓	✓			✓	✓
VF85 (HCMOS)	✓	✓			✓	✓
VF150 (TTL)	✓			✓	✓	✓
VF160 (ECL)					✓	
VF160R (ECL)					✓	
VF161 (ECL)					✓	
VF161R (ECL)					✓	
VF170 (CMOS)	✓					
VFHS170 (HCMOS)	✓			✓	✓	
VFHS170P (HCMOS)	✓		✓			

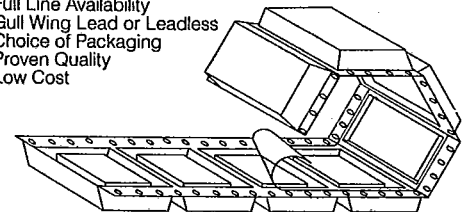
Valpey-Fisher Surface Mount Hybrid Clock Oscillators

Valpey-Fisher oscillators are available in surface mount packages, giving you the many benefits of surface mount technology while continuing Valpey-Fisher's tradition of quality, service and economy. Surface mount oscillators meet the needs of almost every circuit design, allowing reduction in printed circuit board layers and increase in component density. Further benefits can include reduced labor content and cost, increased system reliability, more easily automated assembly and testing, and increased circuit speed due to shorter circuit runs.

Surface mount oscillators from Valpey-Fisher are available in gull wing leaded or leadless design and are suitable for any surface mount soldering technique, including wave, vapor phase, and infrared reflow. Package options include pocket tape and reel and static-free tubes.

Features

- Full Line Availability
- Gull Wing Lead or Leadless
- Choice of Packaging
- Proven Quality
- Low Cost



POCKET TAPE AND REEL



STATIC FREE TUBE